LISTING OF CLAIMS

1.   (**Currently Amended**) In a system for decoding variable length codes in a bit stream, a method comprising:

creating a set of data structures;

selecting an active data structure;

retrieving a bit set size associated with the active data structure**, the bit set size being the maximal number of bits used to index the active data structure**;

reading a number of bits equal to the bit set size from the bit stream; and

obtaining, from the active data structure, in accordance with an actual value of the bits read from the bit stream, a decoded value, actual code length, reference to another data structure, and validity indicator associated with a variable length code.

2.   (Original) The method of claim 1, wherein selecting the active data structure, retrieving the bit set size, reading the number of bits, and obtaining the decoded value, actual code length, reference to another data structure, and validity indicator are repeated until the decoded value is indicated to be valid.

3.   (Original) The method of claim 1, wherein each data structure, from the set of data structures, comprises a memory area containing the decoded value, actual code length, reference to another data structure, and validity indicator for each bit combination that can be formed from the number of bits equal to the bit set size.

4.   (Original) The method of claim 1, wherein selecting the active data structure comprises making one predefined data structure from the set of data structures accessible for future operations when the decoding process is initiated.

5.   (Original) The method of claim 1, wherein selecting the active data structure further comprises making a data structure referenced by the data structure that is currently in use accessible for future operations.

6. (Canceled)

7. (Original) The method of claim 1, wherein the reference to another data structure comprises enabling further identification and access to a selected data structure of the set of data structures.

8. (Original) The method of claim 1, wherein the validity indicator indicates whether the decoded value is valid.

9. (Original) The method of claim 1, further comprising returning excess bits to the bit stream when the actual code length is less than the bit set size of all data structures referenced during decoding of the variable length code.

10. (Original) The method of claim 9, wherein returning excess bits further comprises adjusting a bit stream pointer to allow the bits of the bit stream to be further processed on decoding of a next variable length code.

11. **(Currently Amended)** An article **of manufacture** comprising: a machine accessible medium having a plurality of machine readable instructions **stored thereon**, wherein when the instructions are executed by a processor, the instructions provide for decoding of variable length codes in a bit stream by

creating a set of data structures;

selecting an active data structure;

retrieving a bit set size associated with the active data structure**, the bit set size being the maximal number of bits used to index the active data structure**;

reading a number of bits equal to the bit set size from the bit stream; and

obtaining, from the active data structure, in accordance with an actual value of the bits read, a decoded value, actual code length, reference to another data structure, and validity indicator associated with a variable length code.

12. (Original) The article of claim 11, wherein instructions for selecting the active data structure, retrieving the bit set size, reading the number of bits, obtaining the decoded value, actual code length, reference to another data structure, and validity indicator are repeated until the decoded value is indicated to be valid.

13. (Original) The article of claim 11, wherein each data structure, from the set of data structures, comprises a memory area containing the decoded value, actual code length, reference to another data structure, and validity indicator for each bit combination that can be formed from the number of bits equal to the bit set size.

14. (Original) The article of claim 11, wherein instructions for selecting the active data structure comprise instructions for making one predefined data structure from the set of data structures accessible for future operations when the decoding process is initiated.

15. (Original) The article of claim 11, wherein instructions for selecting the active data structure further comprise instructions for making a data structure referenced by the data structure that is currently in use accessible for future operations.

16. (**Canceled**)

17. (Original) The article of claim 11, wherein the reference to another data structure comprises enabling further identification and access to a selected data structure of the set of data structures.

18. (Original) The article of claim 11, wherein the validity indicator indicates whether the decoded value is valid.

19. (Original) The article of claim 11, further comprising instructions for returning excess bits to the bit stream when the actual code length is less than the bit set size of all data structures referenced during decoding of the variable length code.

20. (Original) The article of claim 19, wherein instructions for returning excess bits further comprise instructions for adjusting a bit stream pointer to allow the bits of the bit stream to be further processed on decoding of a next variable length code.

21. (**Currently Amended**) A system for decoding variable length prefix codes in a bit stream, comprising:

    logic to create a set of data structures;

    logic to select an active data structure;

    logic to retrieve a bit set size associated with the active data structure**, the bit set size being the maximal number of bits used to index the active data structure**;

    logic to read a number of bits equal to the bit set size from the bit stream; and

    logic to obtain, from the active data structure, in accordance with an actual value of the bits read, a decoded value, actual code length, reference to another data structure, and validity indicator associated with a variable length code.

22. (Original) The system of claim 21, wherein logic to select the active data structure, retrieve the bit set size, read the number of bits, obtain the decoded value, actual code length, reference to another data structure, and validity indicator is activated repeatedly until the decoded value is indicated to be valid.

23. (Original) The system of claim 21, wherein each data structure, from the set of data structures, comprises a memory area containing the decoded value, actual code length, reference to another data structure, and validity indicator for each bit combination that can be formed from the number of bits equal to the bit set size.

24. (Original) The system of claim 21, wherein logic to select the active data structure comprises logic to make one predefined data structure from the set of data structures accessible for future operations when the decoding process is initiated.

25.   (Original) The system of claim 21, wherein logic to select the active data structure further comprises logic to make a data structure referenced by the data structure that is currently in use accessible for future operations.

26.   (**Canceled**)

27.   (Original) The system of claim 21, wherein the reference to another data structure comprises means for enabling further identification and access to one data structure of the set of data structures.

28.   (Original) The system of claim 21, wherein the validity indicator comprises means for determining whether the decoded value is valid.

29.   (Original) The system of claim 21, further comprising logic to return excess bits to the bit stream when the actual code length is less than the bit set size of all data structures referenced during decoding of the variable length code.

30.   (Original) The system of claim 29, wherein logic to return excess bits further comprises logic to adjust a bit stream pointer in a way that allows the bits of the bit stream to be further processed on decoding of a next variable length code.